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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF SECRETARY

Before the
Federal Communications Commission
Washington, D.C. 20054

In the Matter of	)	
	)	
Usage of the Public Switched Network	)	CC Docket No. 96-263
by Information Service and Internet	)	
Access Providers	)	
	)	

COMMENTS OF

AMERICA'S CARRIERS TELECOMMUNICATION ASSOCIATION ("ACTA")

Initial Comments: March 24, 1997

Submitted by:

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America's Carriers Telecommunication Association ("ACTA"), by its undersigned counsel, and pursuant to the Commission's Notice of Inquiry ("NOI") in the above-captioned proceeding, hereby submits its initial comments[1] regarding the usage of the public switched telephone network by information service and Internet access providers.

I. INTRODUCTION

ACTA is an industry association representing over 200 providers of competitive telecommunications services including, but not limited to: interexchange carriers, local exchange carriers, wireless carriers and Internet access and service providers. ACTA's members provide international, interstate and intrastate telecommunications services.

As stated in earlier proceedings, ACTA embraces the emergence of the Internet and heralds it as the most revolutionary communications tool since the advent of the telephone itself. ACTA's members are rushing to build Internet infrastructure and to bring amazing technical innovations to

[1] ACTA will respond to the NOI in the order of the issues presented by the Commission. ACTA reserves comment on some issues for its Reply Comments.

the market as quickly as possible. However, the efforts of ACTA's members will be stifled if the Commission leaves in place its existing onerous regulatory regime that forces interexchange carriers ("IXCs") to pull uphill a heavy wagon laden with Internet service providers ("ISPs") and other enhanced service providers ("ESPs") that do not have to pay for their ride.

On March 4, 1996, ACTA filed a petition titled "Provision of Interstate and International Interexchange Telecommunications Services via the 'Internet' by Non-Tariffed, Uncertified Entities, Petition for Declaratory Ruling, Special Relief, and Institution of Rulemaking," RM-8775 ("*ACTA Petition*") that began the public discussion regarding the effects of Internet usage on the public switched telephone network ("PSTN") among many other issues.[2] Subsequent to the filing of the *ACTA Petition*, a debate chocked full of complex nuances has raged, with the mainstream and trade media fanning the flames of controversy with rash over-simplifications, factual errors and misunderstandings. Throughout this debate, ACTA has maintained that IXCs and ISPs are similarly situated vis-a-vis imposing burdens on and reaping benefits from the telecommunications infra-structure and should therefore bear the same or equivalent infrastructure support obligations. ACTA acknowledges the Commission's efforts to create an opportunity for a discussion of the issues as they relate to this powerful new communications tool as we usher out the 20th century and usher in the 21st century. At the same time, ACTA is concerned that the Commission failed to forthrightly address the Internet issues in its *Access Charge Reform* NPRM and relegated dealing with these

[2] Incorporated herein by reference is the *ACTA Petition*, ACTA's Initial Comments, Reply Comments and Supplements filed on August 15, 1996 and August 30, 1996 respectively and ACTA's Comments in response to the Commission's NPRM regarding *Access Charge Reform*, CC Docket No. 96-262.

issues, if at all to some indefinite time in the future. Therefore, ACTA strongly urges the Commission immediately to initiate a Notice of Proposed Rulemaking in response to the comments it receives in this proceeding.

II. DISCUSSION

A. The Commission Should Change the Current Regulatory Regime Which Provides A Disincentive for Entrepreneurs to Build Internet Access Networks To Circumvent the Bottleneck Monopolies.

In Paragraph 313 of the NOI, the Commission asks how its rules "can most effectively create incentives for the deployment of services and facilities to allow more efficient transport of data traffic to and from end users." As ACTA has stated in its Comments in the *ACTA Petition* and *Access Reform* proceedings, the current regulatory regime is outdated and disproportionately burdens IXCs by imposing upon them a bloated access charge and Universal Service scheme.[3] Additionally, if ISPs are allowed to use the existing circuit-switched PSTN without having to pay for the proportionate costs they incur, no natural market incentives to build Internet access networks that circumvent the incumbent local exchange carriers ("ILECs") will exist, thus thwarting the Commission's ostensible goal of adopting policies designed to "create incentives for the deployment

[3] In the *Access Reform NPRM*, the Commission concluded that ISPs should not be required to pay interstate access charges "as currently constituted." NPRM at 127, ¶ 288. In its *Access Reform* Comments, ACTA replied: "ACTA could not agree more. Nor should IXCs be required to pay interstate access charges as currently constituted. Rather, ACTA sees it as the duty of the Commission to adopt a radically *new* access charge regime (meaning fair, equitable and reasonable) that reduces access charges to true cost wherein *all* users of the network bear their respective proportionate shares of rationally calculated access costs." ACTA's *Access Reform* Comments at 24, ¶ 58 (emphasis in original). The advocacy of radical access reform to deprive the RBOCs of the gluttonous profits and flagrant cross-subsidizations that they have devoured for years are policy positions shared by ACTA and its friends in the Internet Access Coalition. The radical reduction of access charges to true cost is paramount if the Commission wishes to advance real competition and the technological innovations it will bring. The IXC and ISP communities are in agreement on this over-arching principle and will remain so despite their differences over the ESP exemption.

of services and facilities to allow more efficient transport of data traffic to and from end users." NPRM at 138, ¶ 313. The Commission should be alarmed by the detrimental effect its current policy could have on infrastructure development in light of the explosive demand for Internet access.

1. IXCs and ISPs Are Identically Situated And Should Bear Identical, Minimal, Regulatory Obligations.

In the course of revising its Rules, the Commission should stop treating ISPs as "end users" of the PSTN[4]. If the Commission uses the *Access Reform* proceeding, or subsequent proceedings related to the *ACTA Petition* to continue to treat ISPs merely as "end users," it must then explain why IXCs should not be deemed "end users" as well. ACTA contends that ISPs are not "end users" of the PSTN any more than IXCs are. ISPs are identical to interexchange carriers ("IXCs") in terms of their interconnection with and use of the PSTN and the burdens placed thereon and the benefits reaped therefrom. In fact, a study prepared for the Internet Access Coalition entitled *The Effect of*

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[4] In a series of decisions, the Commission chose to give a "temporary" exemption from access charges to ESPs. *See, e.g., Amendment of Section 64.702 of the Commission's Rules and Regulations, Second Computer Inquiry, Report and Order*, 77 FCC2d 384 (1980), *modified on recon.*, 84 FCC2d 50 (1980), *further modified on recon.*, 88 FCC2d 512 (1981), *aff'd sub nom. Computer and Communications Industry Association v. FCC*, 693 F.2d 198 (D.C.Cir. 1982), *cert. denied*, 461 U.S. 938 (1983), *aff'd on second further recon.*, FCC 84-190 -- FCC2d --, 55 RR2d 128 (1984)("*Computer II*"); see also *MTS and WATS Market Structure, Memorandum Opinion and Order*, Docket No. 78-72, 97 FCC2d 682, 711-22 (1983); see also *In the Matter of Amendments of Part 69 of the Commission's Rules Relating to Enhanced Service Providers*, 3 FCC Rcd 2631 (1988). In so doing, the Commission concluded "that any discrimination that exists by reason of the exemption remains a reasonable one so long as the enhanced services industry remains in the current state of change and uncertainty." *In the Matter of Amendments of Part 69 of the Commission's Rules Relating to Enhanced Service Providers*, 3 FCC Rcd 2631 (1988). Therefore, the Commission has already admitted that the ESP exemption is discriminatory and temporary. *See* ACTA's *Access Reform* Comments at 25.

However, technology and economics have undercut the Commission's original policies on these issues. Contrary to the market conditions that existed in the 1980's, the ESP industry is no more or less an "infant" industry and is no more or less mired in a state of uncertainty and change than is the traditional local and long distance telephone industry as created by the Telecommunications Act of 1996. That is, if the Commission's criterion for maintaining the exemption is "uncertainty" in the marketplace, then it should extend the exemption to IXCs who are also facing severe competitive dangers.

Internet Use on the Nation's Telephone Network[5] admits that IXCs and ISPs are similarly configured with regards to "the concentration of local network traffic." *Id.* at 17. Although the study erroneously concludes that these similarities are "irrelevant" to issues raised in the *ACTA Petition* and the *Access Reform NPRM* (even though the identical nature of ISPs' and ESPs' networking configuration through the PSTN is an issue at the heart of this proceeding), it goes on to compare ISPs to end users, such as radio call-in shows, in a truly irrelevant fashion. As a result, the study misses the point of the *ACTA Petition*: ISPs should bear the same access and Universal Service obligations as IXCs because their use of and interconnection with the PSTN is identical. Never does the Internet Access Coalition study rebut the fact that Internet and long distance traffic travel over the PSTN in an identical manner. Therefore, the only conclusion to be inferred from the study is that ESPs and IXCs should be treated identically by any new access and Universal Service regimes.

B. Existing Policy Will Actually Undermine Universal Service and Network Improvement Policies.

If the Commission continues to place the heavy thumb of the government onto the delicately balanced scale of the free market and erroneously treat ISPs (and other ESPs) as end users, it will extinguish incentives for ISPs, or other telecommunications service providers, to build Internet access networks around the existing bottleneck monopolies. That is, if Commission policy continues to create artificial pricing to subsidize below-cost, flat-rated Internet access, market players will

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[5] Attached as Exhibit A are two copies of the diagram used by the authors of the study to justify continuation of the ESP exemption. However, with only a slight modification of the labels involved (*see* p. 2 of Exhibit A), ACTA is able to illustrate that ISPs are configured into the PSTN in an identical fashion as IXCs. See also Exhibit B, pp. 4-5, seminar material provided by Kevin Werbach, Counsel for New Technology Policy, Federal Communications Commission.

respond by continuing to use the monopoly-owned PSTN rather than steer investment toward building alternative networks. Ultimately, the Commission's policy will slow the break-up of the monopolies and their stranglehold on competition. Additionally, by exempting ISPs not only from access charges but from Universal Service "taxes" as well, the Commission is beaming a strong economic signal for incumbent IXCs to pipe traditional telephony[6] over the packet-switched network of the Internet, thus circumventing access and USF obligations.[7] The Commission should take official notice that the creation of such an economically irrational incentive will eventually undermine Universal Service and infrastructure improvement policy goals because the source of the subsidies for those goals, namely traditional long distance traffic, will be diverted onto this new "tax-free" network called the Internet. In making policy, the Commission should not duck its statutory duty and fall into the politically convenient trap of delaying a decision on these issues until Internet telephony becomes ubiquitous. Such a delay would only be a denial of reality. Internet telephony technology continues to develop at an astonishing pace. The galvanization of Commission policy that creates artificial incentives may further speed already swift developments, but at what cost? If the Commission is earnest in its quest for free telecommunications competition, it should allow the strength and power of new technologies to drive the market place and not put government in the

[6] Handset-to-handset Internet telephony is available through existing technology and technical improvements are occurring exponentially. *See, e.g.*, Exhibit C, pp. 2-4, seminar materials by Natural Microsystems, "Internet Telephony and NMS Fusion."

[7] To quote the general manager of one of ACTA's members speaking at the ACTA XXV Conference on March 10, 1997, "If the FCC makes it cheaper for my company (currently an IXC) to provide traditional telecom services as an ISP, guess what?! I'll find a way to 'become' an ISP!"

position of picking market "winners."[8] Additionally, as ACTA commented before in the Universal Service proceeding, the Commission should not elevate the status of ISPs to *recipients* of Universal Service funds if they are not required to shoulder the responsibilities of such status, namely, making Universal Service contributions just like IXCs. To do otherwise would be to give ISPs two subsidies: the ESP exemption and USF cash.[9]

C. Packet-Switched Data Running Over the Internet Can Be Measured for Universal Service and Access Charge Purposes.

In Paragraph 315, the Commission queries whether packet-switched data can be metered given the irrelevancy of time sensitivity to such networks. *NPRM* at 139, ¶ 315. In fact, packet-switched information transmissions have been measured and tariffed by major carriers such as AT&T and SNET for years. SNET offers a "Packet Switched Data Network" ("PSDN") in its FCC Tariff No. 39. The carrier charges apply to kilosegments and rates range from 20 to 35 cents per kilosegment during peak usage times. *See also* SNET Transmittal #638 for tariffed recurring and non-recurring cost ratio data. AT&T's FCC Tariff No. 4 defines the appropriate terminology as follows:

> Octet - an eight-bit byte. A byte is a small group of data bits handled as a unit.

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[8] ACTA cannot make this point more succinctly than what William Gurley wrote in *InfoWorld* on February 10, 1997 regarding the consequences of preserving the ESP exemption: "We will be assured that companies will invest millions of dollars chasing unnatural market opportunities created solely by inconsistent governmental policies. . . . It is dangerous to have a situation where arbitrage opportunities based on government mandated pricing are catalysts for investment . . . ."

[9] To quote Mr. Gurley again, keeping the current policy will mean "voice-based long distance will be the sole subsidizer of universal service." *InfoWorld*, Feb. 10, 1997.

> Segment - a unit of data with a maximum length of 64 octets.
>
> Packet - a block of Customer data in a defined format including header information. A packet may be comprised of from one to 256 octet.
>
> Packet Charges - These charges apply to all data packets (including Customer or User generated interrupt and reset packets) switched by ACCUNET Packet Service. Charges apply to all data packets transmitted or received at (1) a port through which a call is originated or (2) at the terminating port when reverse charging applies.

AT&T Tariff No. 4. ACTA is confident that other forms of data measurement can be developed with the same ingenuity as other Internet products have been created. As demonstrated by the SNET and AT&T tariffs, all claims that packets cannot be measured adequately for access charge or Universal Service contribution purposes ring hollow. Also, if the Commission radically reduces access charges to true cost and ends the ESP exemption completely (thus fairly spreading the costs of using the network to all users of the network), there will be no need to "distinguish between different categories of information or enhanced service." NOI at 139, ¶ 316.

D. Internet Telephony Is Basic Service And Should Be Treated Accordingly.

Even if the Commission ultimately decides to place itself into the business of picking market winners and retain the ESP exemption, it still must declare that telephony over the Internet is basic service subject to the same obligations as other telephony as a matter of law. ACTA has fully briefed the legal arguments concerning this issue in the proceeding sparked by the *ACTA Petition*, and incorporates by reference those pleadings and the arguments therein. Nonetheless, for the convenience of the Commission, ACTA provides the following summary of its position.

ACTA contends that those who sell, market and advertise the ability to place telephone calls over the Internet are providing the same telecommunications service subject to federal and state regulations as ACTA's members and the rest of the IXC community. Similarly, providers of voice, data and video services over the Internet are already included in the large universe of "telecommunications service" providers as defined by the Telecommunications Act of 1996.[10] The 1996 Act defines such services broadly as: "the offering of telecommunications for a fee directly to the public," and "telecommunications carrier" to include "any provider of telecommunications services."[11] Not only do Internet telephone service providers qualify as telecommunications service providers under the 1996 Act, but they are common carriers under the Communications Act of 1934[12] as well because they hold themselves "out to serve the public" by offering telephone services. *See NARUC v. FCC*, 525 F.2d 630, 641-642 (D.C. Cir. 1976). Not actually transmitting the data or owning any of the facilities over which an Internet phone call travels is irrelevant under this analysis as a matter of law. *See AT&T v. FCC*, 572 F.2d 17, 24 (D.C. Cir. 1978). In other words, the Commission has long held that a phone call is a regulated service whether it travels over Class V circuits, the Internet or two tin cans and a string.[13]

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[10] Pub. L. No. 104-104, 110 Stat. 56 (1996), *to be codified at* 47 U.S.C. §§ 151 *et seq.* ("1996 Act").

[11] 1996 Act, Sections 3(a)(2)(49), (51).

[12] 47 U.S.C. §§ 151 *et seq.*, prior to enactment of the 1996 Act ("1934 Act").

[13] The Commission should note that earlier this year, the Nebraska Public Service Commission informally concluded that an ISP offering intrastate telephony over the Internet was an IXC and should have been duly certified. Unfortunately, no written order is available.

Additionally, Internet telephony is basic service because it provides two-way, real-time voice service and does not perform any of the functions of an enhanced service.[14] Accordingly, the Commission has no choice but to treat Internet phone providers in the same manner as it does "traditional" IXCs.

Respectfully submitted,

AMERICA'S CARRIERS
TELECOMMUNICATION ASSOCIATION

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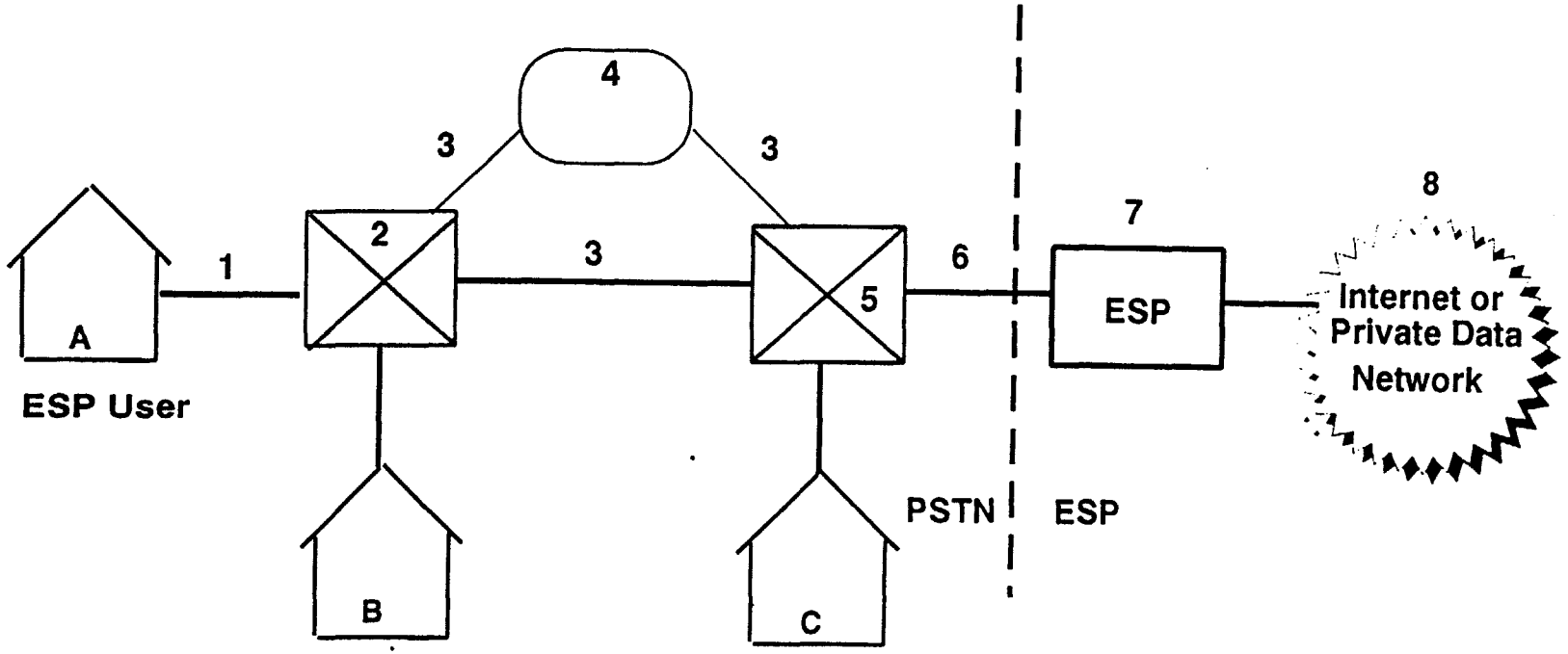
Its Attorneys

Dated: March 24, 1997

[14] Internet telephony does not: 1) act on the subscriber's transmitted information; 2) provide the subscriber additional, different or restructured information; and 3) involve subscriber interaction with stored information. See 47 C.F.R. § 64.702(a). It offers nothing more or less than plain old telephone service. *See also Computer II* supra; see also *In the Matter of NATA*, 101 FCC2d 349 (1985) regarding how even if the Commission erroneously finds that Internet phone services are not basic services, they are "adjunct to basic" services that can and should be regulated as IXC services. *See also GTE Services Corp. v. FCC*, 474 F.2d 724, 739 (2d Cir. 1973).

EXHIBIT A

Local Telephone Network and On-line/Internet Service
Principal PSTN and ESP Elements

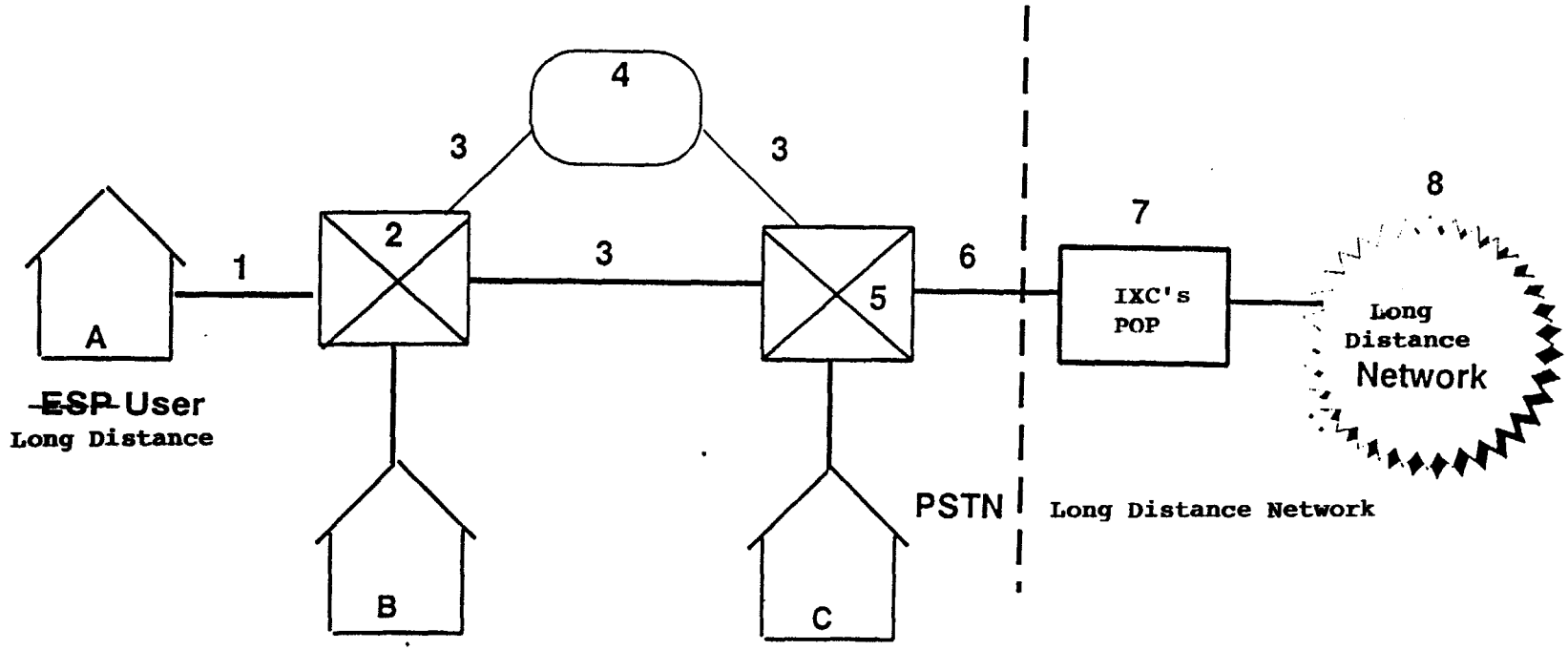


Nework Elements

1. ESP User's subscriber line to end office
2. End office (class 5 switch) serving ESP user
3. Interoffice trunks
4. Local tandem switch
5. End office (class 5 switch) serving ESP
6. ESP business lines or trunks to end office
7. ESP hardware and software
8. Internet or private network (backbone, routers, software, servers, etc.)

Local Telephone Network and ~~On-line/Internet~~ Long Distance Service

Principal PSTN and ~~ESP Elements~~ Long Distance Elements



Nework Elements

1. ~~ESP~~ L-D User's subscriber line to end office
2. End office (class 5 switch) serving ~~ESP user~~ Long Distance User
3. Interoffice trunks
4. Local tandem switch
5. ~~End office (class 5 switch) serving ESP~~ Wire Center
6. ~~ESP business lines or trunks to end office~~ Feature Group D circuits
7. ~~ESP hardware and software~~ IXC's POP
8. ~~Internet or private network (backbone, routers, software, servers, etc.)~~ Long Distance Network

EXHIBIT B

The Internet and Telecommunications Policy

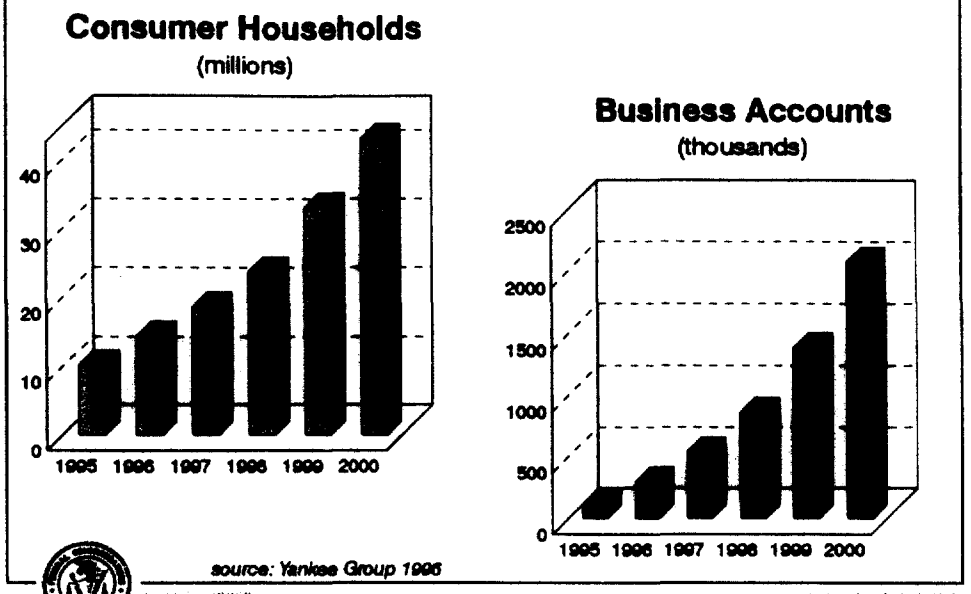
Kevin Werbach
Counsel for New Technology Policy
Federal Communications Commission
<kwerbach@fcc.gov>

December 1996

Internet Trends

- High rate of growth
  - 488,000 domain names as of July 1996, up from 30,000 in January 1994.
- Flat-rated pricing
  - Major U.S. ISPs charge $19.95/month unlimited usage.
- Increasing number of ISPs
  - 3,000 U.S. ISPs as of August 1996 *(Boardwatch Survey)*
- Innovation in both software & hardware
  - Internet Telephony
  - Web TVs

Internet Growth Projections



source: Yankee Group 1995

Reasons for Growth

- Demand for services.
- Technology becoming easier to use.
- Scalable architecture.
- Competition decreases costs.
  - software
  - hardware
  - networks (e.g. long-distance fiber deployment)
- Unregulated.

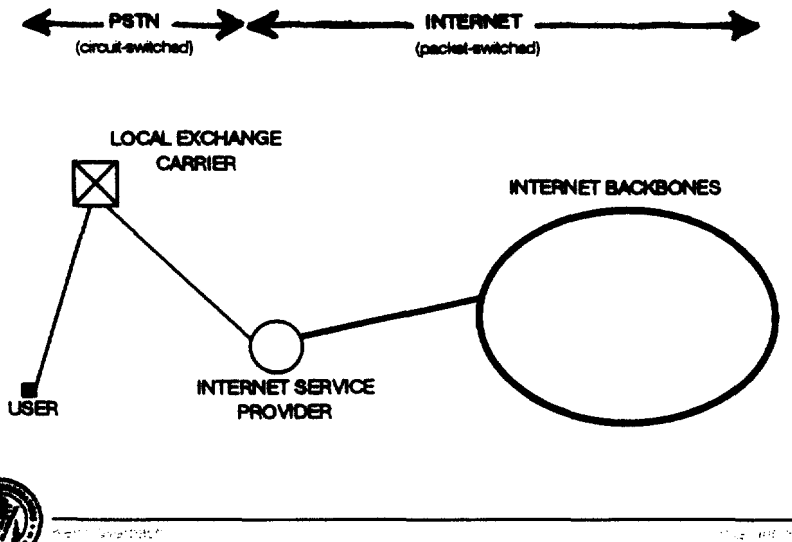
Policy Questions Raised by Growth

- Network congestion
  - technical problem or management failure?
- Reliability and service quality
- Governance
- Investment and innovation
- Definitional issues
  - services? facilities? carriers?
- Universal service
- Content?

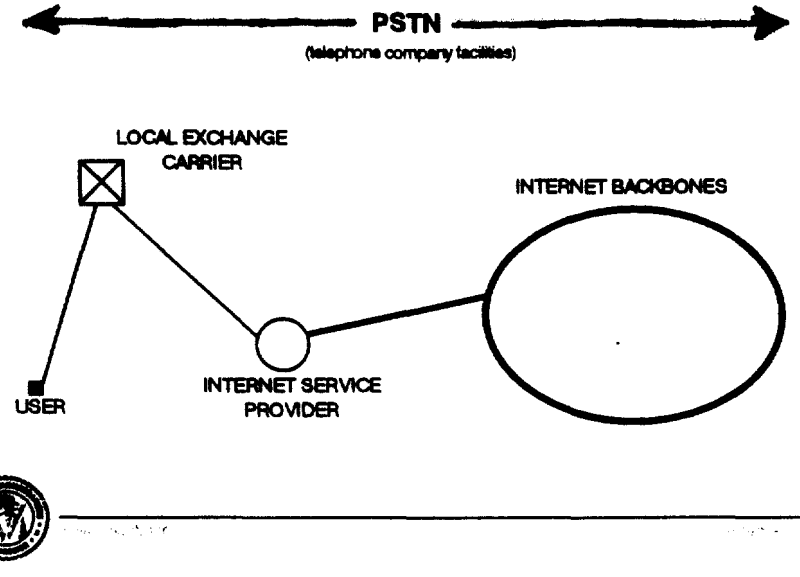
Federal Policy Goals

- Competition.
- Incentives for investment.
- Technological innovation.
- Deregulation and non-regulation.
- Affordable access (esp. for schools).

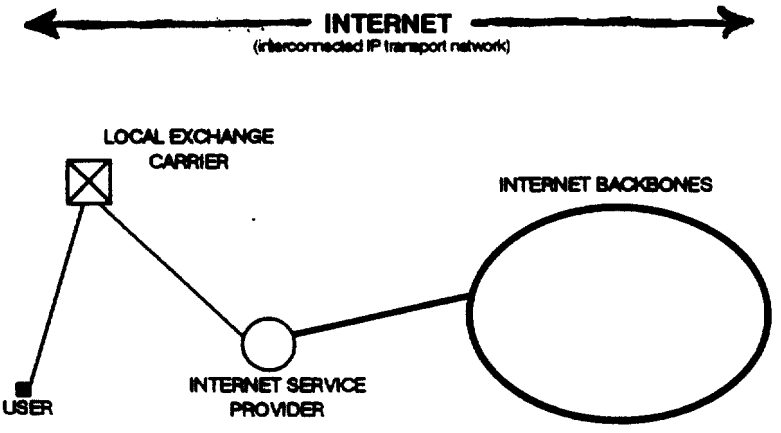
The Internet and the PSTN



The Internet and the PSTN?



The Internet and the PSTN???



The 1996 Telecom Act

- Signed February 8, 1996.
- Overarching goal is a pro-competitive, deregulatory communications policy.
  - Efficiency (levelling the playing field upwards).
  - Favoring competition, not competitors.
  - Removal of barriers to entry and elimination of unnecessary regulation.
- BOCs must open local markets, and in return receive long-distance authority.

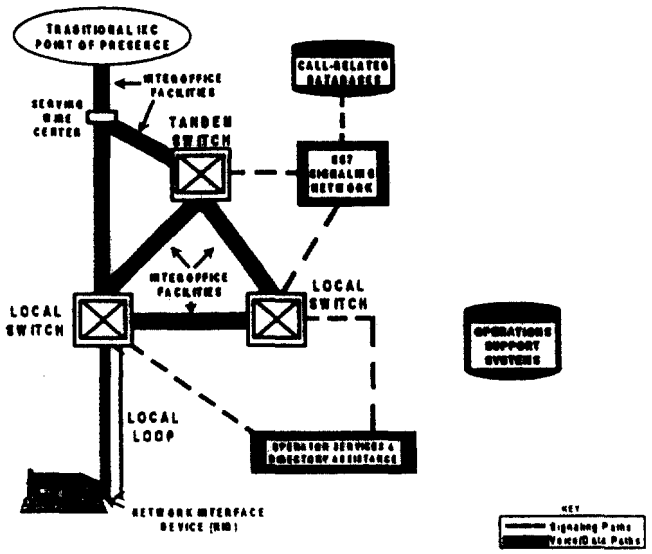
The Competition Trilogy

- Interconnection
  - FCC Order released August 8, 1996.
  - 8th circuit stays pricing sections; full hearing in January.
  - Implementation by states and parties.
- Universal Service
  - Federal-State joint board formed.
  - Joint board recommendations issued in November.
  - FCC action by May 8, 1997.
- Access Reform
  - NPRM to be issued in December.
  - Order issued with or before universal service decision.

The FCC Interconnection Order

- Guidelines for opening of local telephone markets to competition.
  - Three modes of entry: use of unbundled elements, resale, and construction of new networks.
- Federal rules govern arbitration process.
- Implementation and litigation ongoing.
- Importance for Internet:
  - Unbundling of local networks (allows for deployment of new technologies and methods of interconnection).
  - Potential new suppliers for ISPs.
  - Competitive backdrop for Internet telephony.

Unbundled Elements



Universal Service

- Assure affordable service for all.
  - rural, high-cost, low-income
- Explicit, competitively-neutral funding system.
- Access to advanced communications services.
- Discounts for schools, libraries, and rural health care providers.
- Who pays? What services are funded?
  - Joint Board recommends that providers of information services only not be required to contribute to fund.

Access Reform

- IXCs pay access charges for use of local networks to originate and terminate calls.
- Access charges are well above cost and structured in an inefficient manner.
- ISPs are considered "users" and not required to pay interstate access charges.
  - ISPs instead pay state-tariffed rates (typically measured business lines + end user common line charge)
- Commission deciding whether to raise questions about Internet in NPRM.

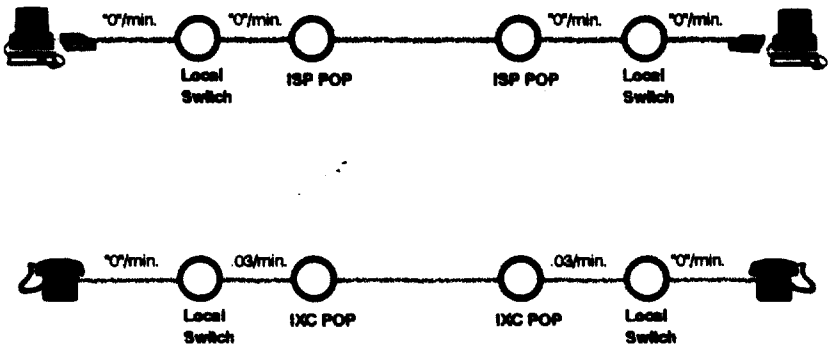
Category Difficulties

- 1996 Act distinguishes "telecommunications" and "information" services.
  - Telecommunications: "the transmission, between or among points specified by the user, of information of the user's choosing, without change in the form or content of the information."
  - Information Service: "generating, acquiring, storing, transforming, processing, retreiving, utilizing, or making available information.
- Is streaming audio/video broadcasting?
- Jurisdictional divisions (local/state/federal/int'l).

Why This is Hard

- Literal readings generate strange results.
  - Is an email message telecommunications?
- Some line drawing is inevitable.
  - Status quo results from an FCC categorization of ESPs.
- The Internet overcomes all boundaries.
  - No discrete connection paths.
  - ISPs may not even know what services are running over their facilities.
- Technology and businesses keep moving.
  - For example, development of Internet telephony, and now phone-to-phone gateway services.

VON vs. Conventional Telephony



Congesting the Circuit Network?

(Packet data in a circuit world)

- LECs and others claim heavy Internet use causes congestion of their networks.
  - The public switched telephone network was engineered on the basis of assumptions about voice usage.
- LEC studies show that ISPs have higher usage levels than average end users.
- Different from congestion of the backbones and switching points of the Internet itself.

Network Usage Studies

	Office Avg Busy Usage		Office Avg Call Holding Time	Avg Call Hold Time
Bell Atlantic	3 CCS	26-28 CCS	4-5 minutes	17.7 minutes
[illegible] West	3 CCS	27 CCS	2.4 minutes	16.7 minutes
Pacific Bell	4 CCS	19 CCS	3.8 minutes	20.8 minutes

Source: usage studies submitted to FCC (CCB/CPD 96-16) based on traffic during first quarter 1996.